

DIFFERENCES IN HYDRATION STATUS IN ANURIC AND NON-ANURIC PATIENTS IN PERITONEAL DIALYSIS ASSESSED BY BIOIMPEDANCE SPECTROSCOPY.

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OBJECTIVES

In peritoneal dialysis (PD), the volume elimination depends on the ultrafiltration achieved with dialysis and the residual diuresis (RD).

The absence of RD could be a handicap to achieve euolemia.

The bioimpedance spectroscopy (BIS) is essential for the proper control of volume status in PD.

OBJECTIVES:

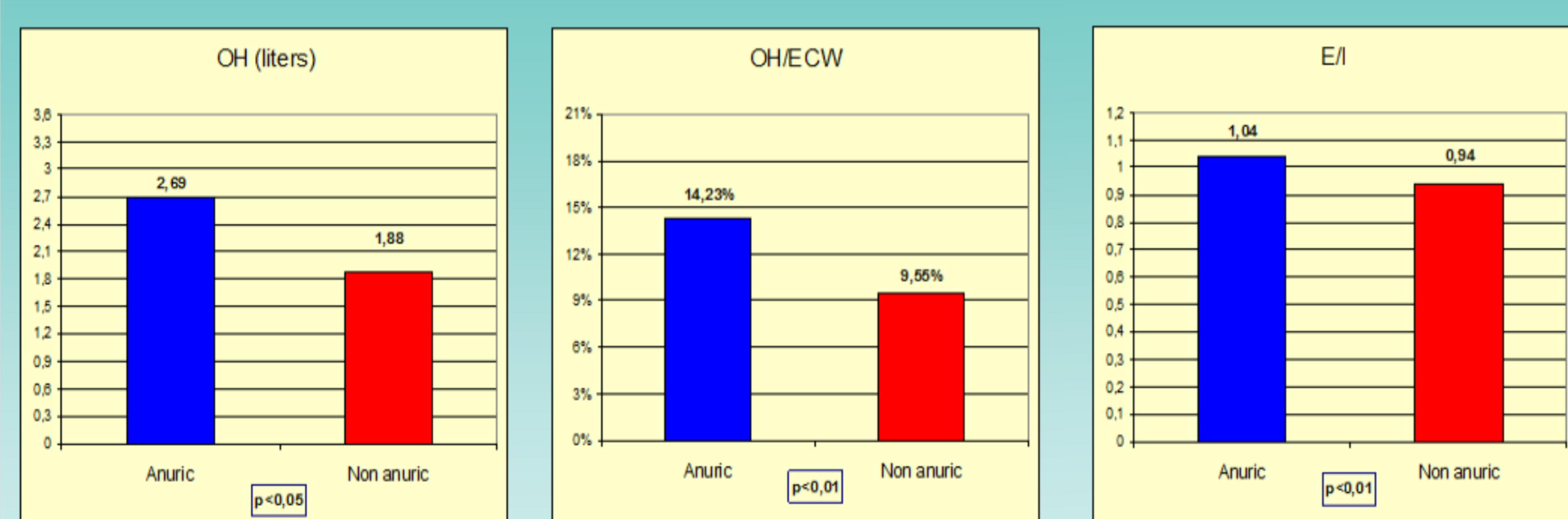
- To assess hydration status in PD patients by BIS and compare the differences between anuric patients and patients with RD.
- To assess the association between hydration status and volume removal in anuric and non-anuric PD patients.

METHODS

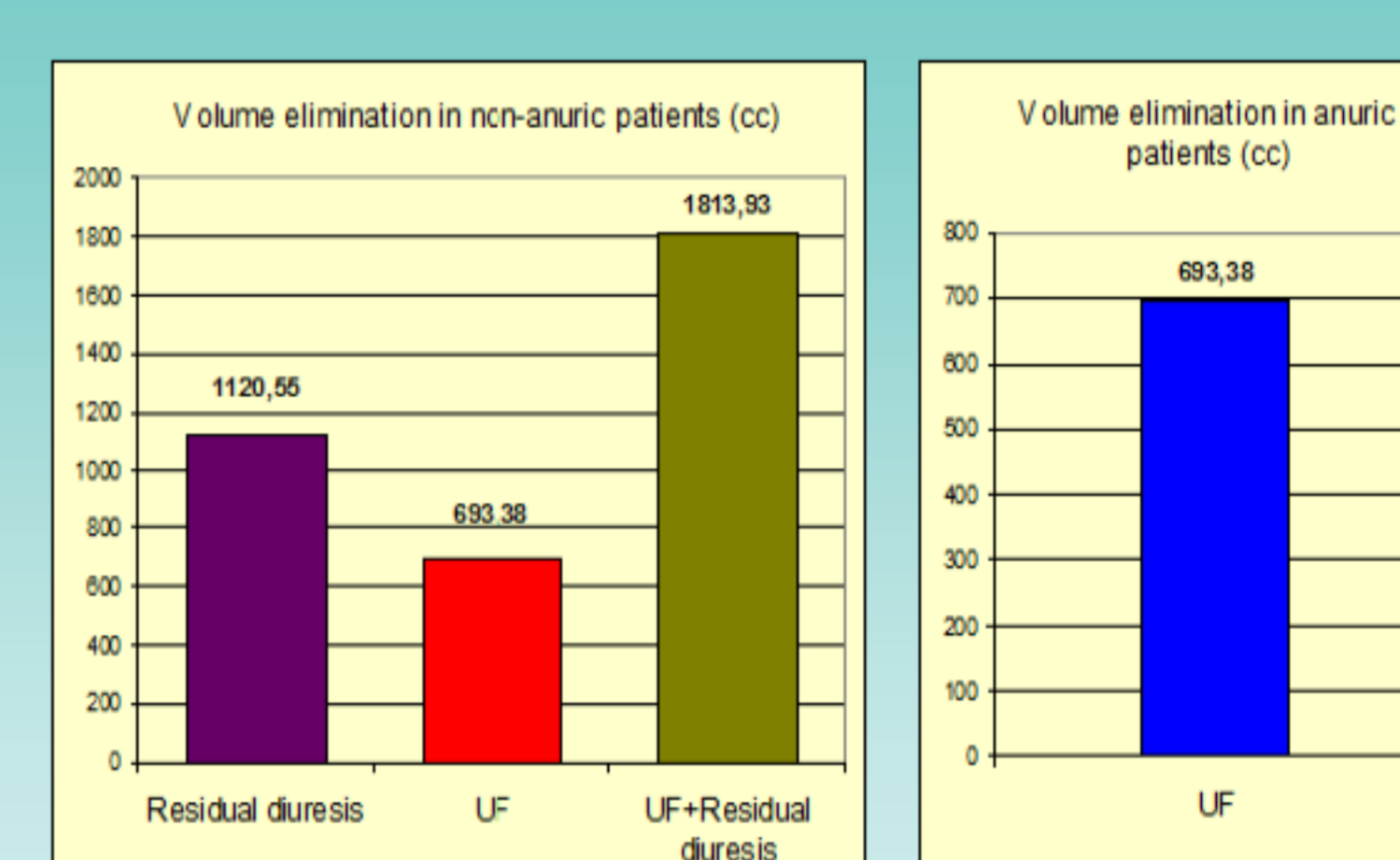
- Prospective study in PD patients (3 years).
- Two groups: anuric patients (AP) and non-anuric patients (N-AP).
- At each clinical visit we measure:
 - Residual diuresis (RD), ultrafiltration (UF) and total elimination (UF+RD).
 - BIS: overhydration (OH), OH/ECW and E/I.
- We compare OH, OH/ECW and E/I between AP and N-AP (Student t-test, $p < 0.05$).
- In both groups, we assess association between removed volume (RD, UF and UF+RD) and volumetric parameters by BIS (OH, OH/ECW and E/I) (Pearson correlation coefficient, $p < 0.05$).

RESULTS

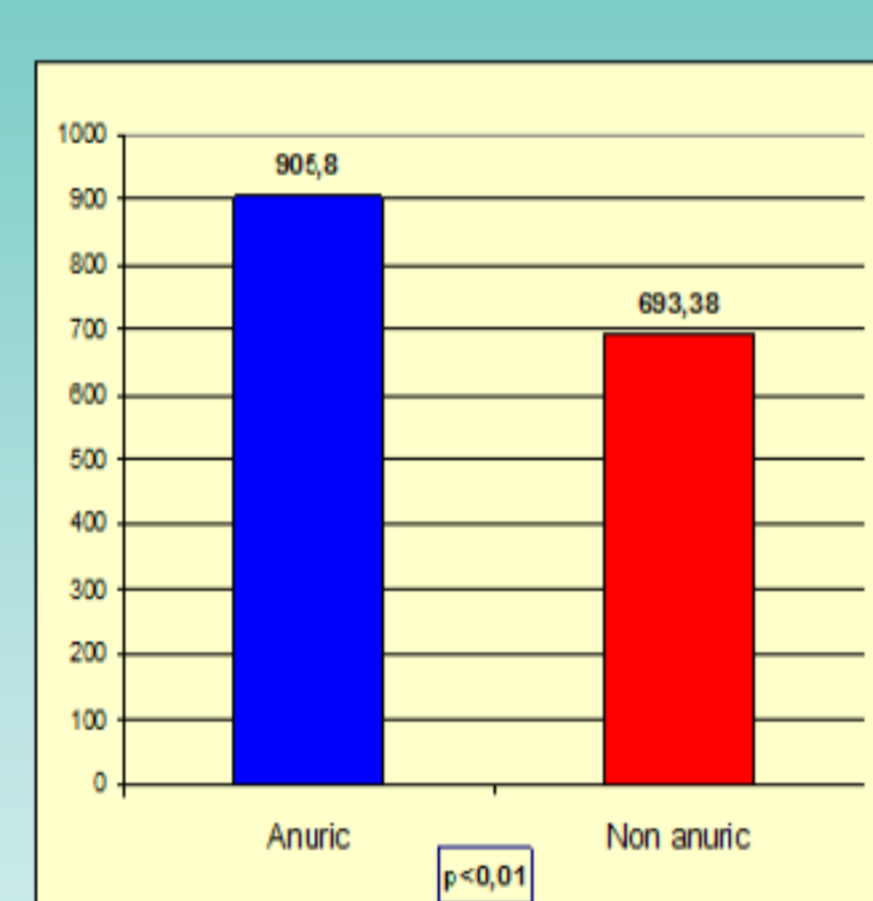
Comparison of BIS results between anuric and non-anuric patients



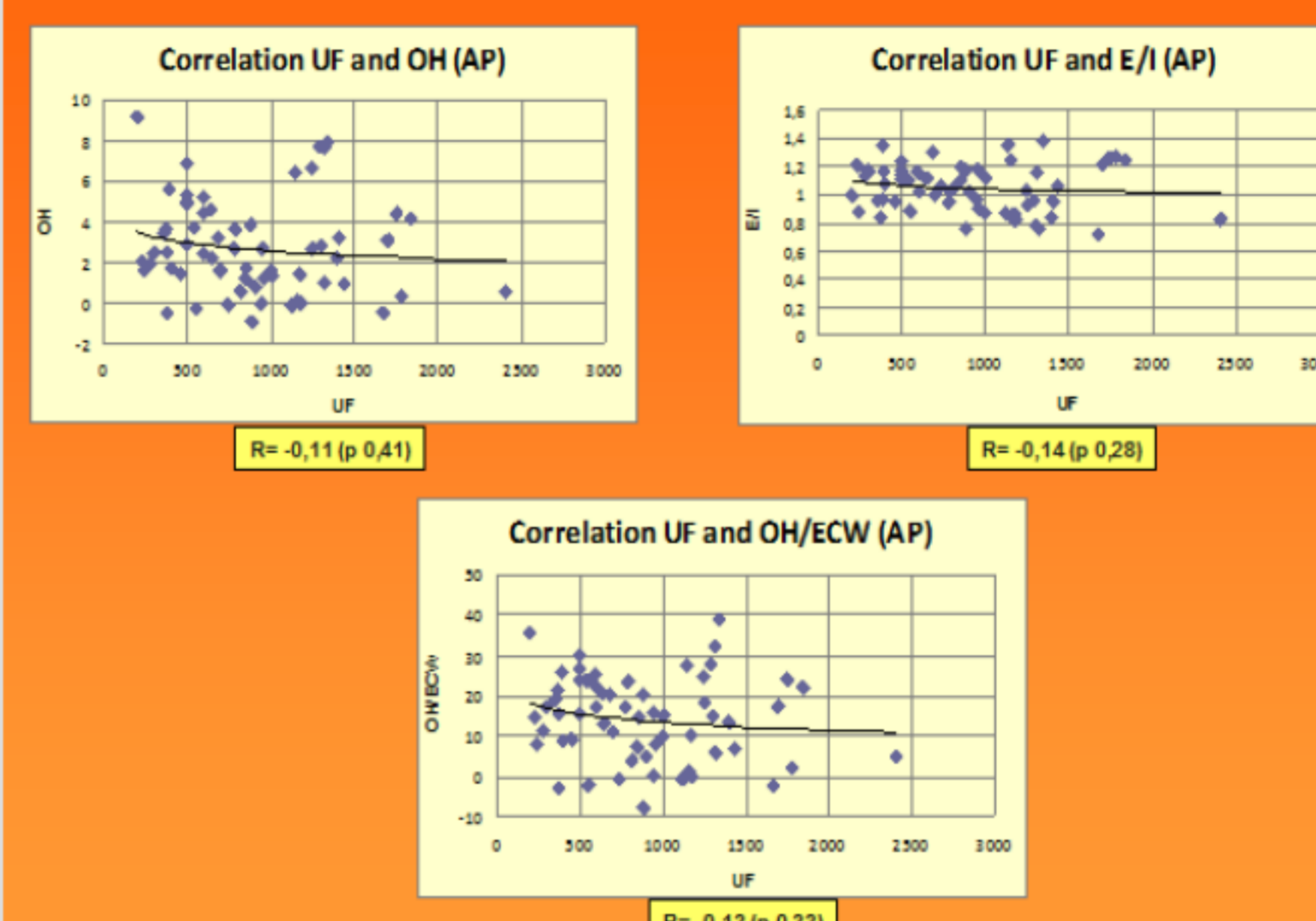
Volume elimination in anuric and non-anuric patients



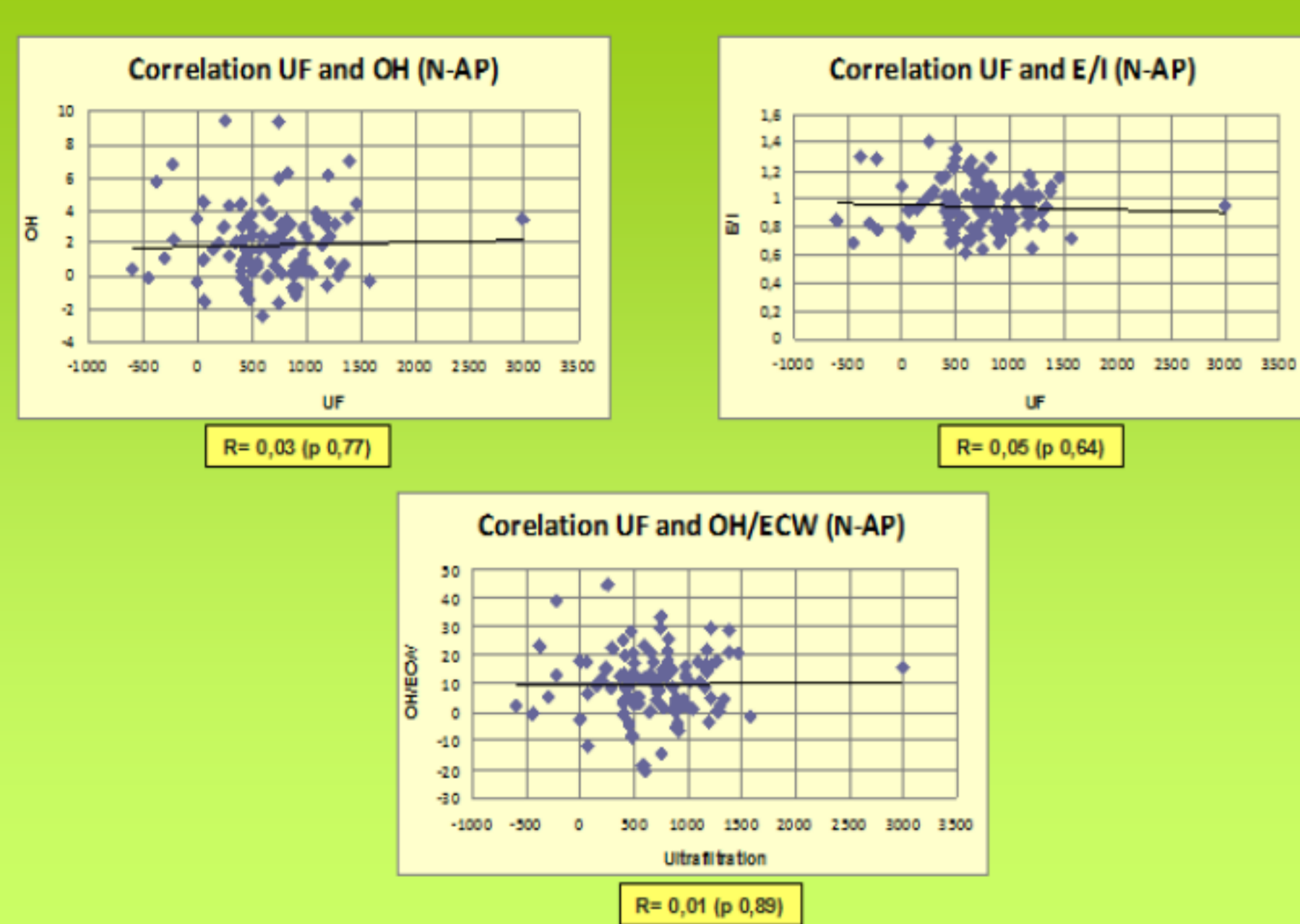
Comparison of UF (cc) between anuric and non-anuric patients



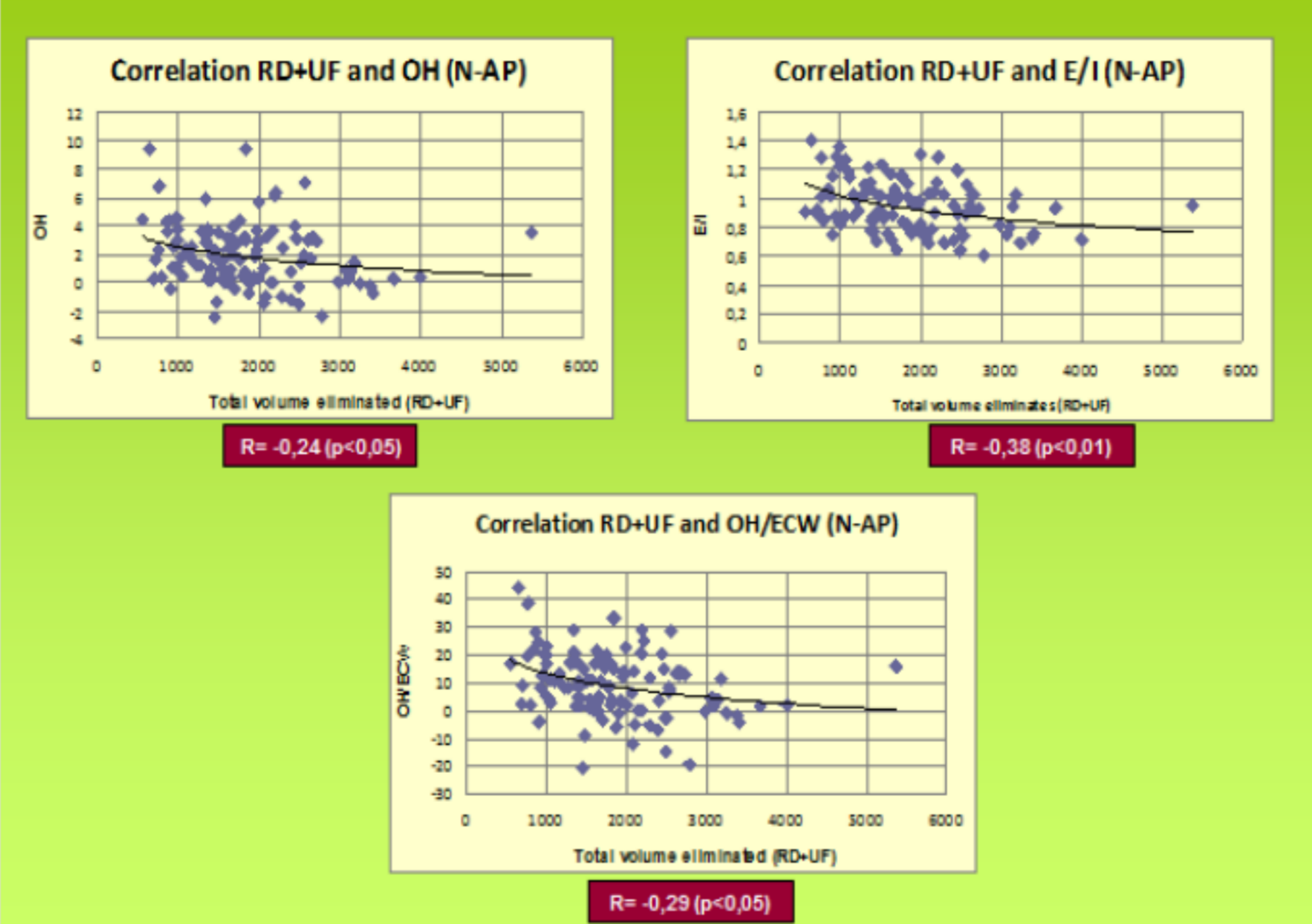
Association between UF and BIS parameters in anuric patients



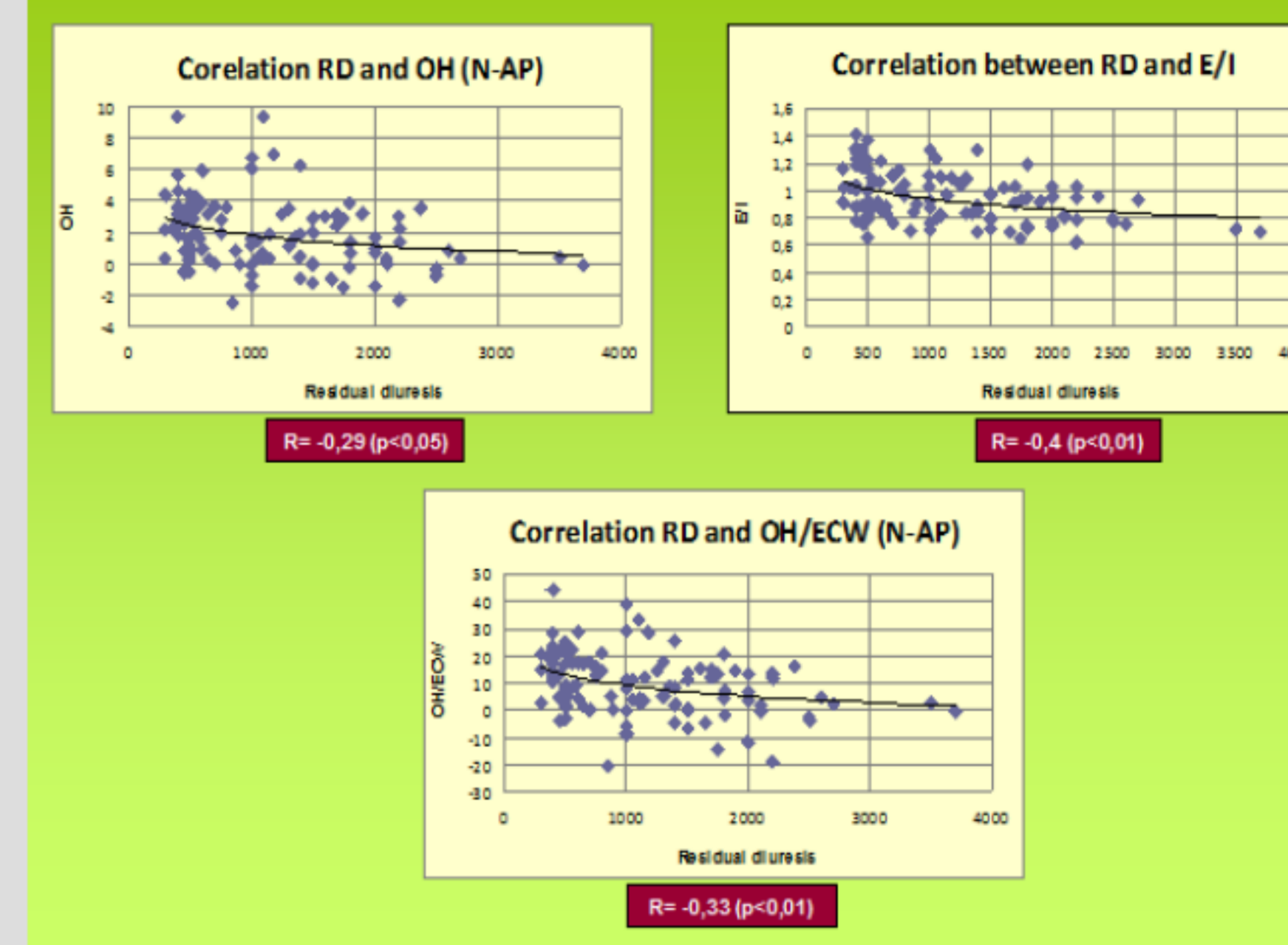
Association between UF and BIS parameters in non-anuric patients



Association between RD and BIS parameters in non-anuric patients



Association between RD+UF and BIS parameters in non-anuric patients



CONCLUSIONS

- Anuric patients are more overhydrated than patients with residual diuresis in PD.
- In both anuric and non-anuric patients, there is no correlation between ultrafiltration and fluid overload.
- The residual diuresis is associated with less overhydration in PD patients.
- Residual diuresis in PD patients is essential for a proper hydration status.
- BIS is fundamental tool for the management of hydration status in patients on PD.